

Var. *i*. With a chestnut brown ground, a red apex, and an orange-coloured edge to the outside of the pink-edged peristome, and without any white band but a slender white sutural line.

Var. *k*. With a yellowish brown ground colour, the apex and the back of the peristome bright orange-red; peristome and columella rose-coloured; without a band, but with a slender white suture line.

Var. *l*. Of an uniform yellowish brown, with white peristome.

Var. *m*. Of an uniform pale brownish yellow, with white peristome.

The most beautiful varieties are most abundant on the leaves of bushes and young trees at St. Jaun, where also all the other varieties are found. Some of the lesser painted varieties are also found at Abulug in the same province. The species has not been found in any other part of the Philippine Islands.

Since this paper was read two other varieties have been found by Mr. Cuming in his packages; they are

Var. *n*. Of a very rich dark chestnut brown, with a scarlet apex, four very narrow interrupted white bands of *epidermis*, a white suture, and orange-coloured outer edge to the white peristome.

Var. *o*. Of a rich light brown colour, with a yellowish band forming the circumference of the shell, and another band of the same yellowish colour in front, near the *columella*; peristome white, its edge pink, and back of the lip orange-yellow.

MISCELLANEOUS.

ZOOLOGICAL OBSERVATIONS MADE IN THE NEIGHBOURHOOD OF TENBY.

BY J. F. DAVIS, M.D. WITH A PLATE.

To the Editors of the Annals and Magazine of Natural History.

Bath, Oct. 23rd, 1840.

GENTLEMEN,—During a temporary sojourn at Tenby in August last, I was induced to see a large fish in the possession of a publican and fisherman named Cadwallader, which he had taken in Tenby Bay the preceding autumn, while employed in the capture of herrings. It had been tolerably well-preserved and was kept for exhibition, being by no means destitute of attraction. It measures ten feet in length and six feet in girth, between the eyes two feet and a half, and has the appearance of belonging to the Sharks; but its most remarkable feature is the head, which, as Cuvier remarks of the Hammer-headed Shark, is unlike to anything in the whole animal kingdom besides. It is a female, and when opened was found to contain a considerable number of young ones about eighteen inches long, one of which is stuffed and exhibited with the mother. Upon my return to Bath in September I had an opportunity of referring to Mr. Yarrell's late work on British Fishes, where there is the following notice of this animal as an occasional visitant of our coasts. "The genus of Sharks next in order, according to Cuvier's arrangement in the 'Règne Animale,' is that of *Zygæna* or Hammer-headed Sharks, of which a single specimen is recorded by Messrs. C. and J. Paget, in their 'Sketch of the Natural History of Yarmouth,' p. 17, to have been taken there in October 1829, the head of which is now preserved in

the Norwich Museum." He adds in a note, "the specific name of the example taken and here referred to has not, I believe, been determined. A reference to a paper by M. Valenciennes in the ninth volume of the 'Mémoires du Muséum', which supplies detailed descriptions of four species of the genus, would probably settle this point. A representation of the most common species, *Zygæna malleus*, Val., is here given as a vignette to draw the attention of observers to the subject." Upon inspection of the vignette the Tenby specimen was instantly recognized*, and its identity with *Zygæna malleus*, Val., completely established by a subsequent reference to the 'Mémoires.' The owner of the fish would be very glad to dispose of it.

Amongst the variety of animals which we had opportunities of seeing during our stay at this charming marine watering-place, none afforded greater interest than a small Medusa belonging to the genus *Cyanæa*, Cuv. It cannot, I think, be referred to any known species†, for it differs from all the figures of the smaller Medusæ in the 'Zoologia Danica,' the 'Tableau Encyclopédique,' and 'Règne Animale,' and likewise from those illustrative of Dr. Macartney's paper in vol. c. of the 'Philosophical Transactions,' chiefly in the depth of the bell or disc and length of the tentacula.

Having been discovered by Mrs. Davis, who had likewise the best opportunity of watching its motions during several weeks that she kept it in a glass of sea-water at Tenby and afterwards here, whither it was conveyed in a phial of the same, and lived three weeks after its arrival, I will state the history of this "thing of light and life" in her own words: "One morning, while pouring some sea-water into the vessels containing my Actiniæ, I observed two small objects, which I took for the young of these animals, and as quickly as possible raised them in a spoon out of the basin and placed them in a tumbler of clean sea-water. They resembled *tiny* bell-glasses. Four transverse rays were perceptible on their sides, and a minute red body, with four white arms forming a cross, was suspended in the water. Around the edge of the bell or disc appeared a delicate white fringe, which was lengthened or shortened at the pleasure of the animal. The contraction was sometimes so great as to give to the fringe the appearance of being knotted up to the edge of the bell or disc. It was highly interesting to watch their movements in the water as they ascended from the bottom, the bell or disc contracting and dilating alternately until the animal arrived near the surface of the water. This motion was particularly conspicuous at the edge of the disc, and the fringe or tentacula became shortened as the animals rose in the water; but when they descended again the tentacula lengthened, sometimes to a great degree, after which the animals sunk gradually, and without any visible effort. At the end of a fortnight one of my pets turned itself inside outwards, and remained in this state for some time, when it died and left only a few flocculent particles at

* See also Suppl. to British Fishes, Part II. p. 61.

† Perhaps it may be a species of *Oceania*, allied to *O. cacuminata* of Eschscholtz, and which has not before been noted as British.—Ed.

the bottom of the vessel. The other lived more than two months longer, and even bore a voyage to Bath in a closed phial of sea-water, and remained active and vigorous during the space of three weeks, when it likewise shrunk, died and disappeared like the former, but without the previous eversion. As a species it may perhaps be thus characterized: *Cyanæa coccinea*, minute, campanulate, translucent, with four faint rays. In the centre a red ball with four white arms forming a cross; at the margin of the disc numerous tentacula, being sometimes as long as the disc, at others shortened, as if knotted up to the margin of the disc."

See Pl. II. fig. 1, natural size, as it appeared in sea-water; fig. 2. magnified, with tentacula expanded; fig. 3. ditto, with tentacula contracted.

"During our stay at Tenby the sea was often very luminous; and whenever this happened, the sea-water brought in daily for some Actiniæ and other marine animals which I kept alive in basins, exhibited the phenomenon when in motion, but never while at rest. Even breathing upon it when viewing the animals which it contained was sufficient to excite its luminous appearance. Being anxious to ascertain the cause of the luminosity, I night after night examined carefully the water, taking up sometimes what seemed to be sparks of fire in a spoon or glass, without discovering anything more than small bubbles, which instantly burst and vanished. Could these be the *Medusa scintillans* of Macartney, 'Phil. Trans.' vol. c.? I had no opportunity of examining them with glasses of high power. The weather was hottest at the time when the sea was most luminous, and it was the opinion of persons on the spot who made use of the water, that it was saltier when luminous than at other times. Dr. Macartney, in his 'Observations upon Luminous Animals,' in the 'Phil. Trans.,' mentions *Pholas Dactylus* amongst others as exhibiting the phenomenon; but that animal never appeared luminous to me, although I kept it alive and in a vigorous state many weeks. In the course of my observations I saw no reason to attribute the luminosity of the sea to any animal."

I am, Sir, your most obedient servant,
J. F. DAVIS, M.D., F.L.S.

MR F. M. JENNINGS ON EELS KILLED BY FROST, IN A LETTER TO
W. THOMPSON, ESQ.

Cork, March 18th, 1841.

DEAR SIR,—I send you the following account of a phenomenon which took place in the river Lee, about six miles below Cork, in some respects similar to that which occurred in the river Lagan (see p. 75 of the present volume). I much regret not having heard of the circumstance until nearly a month after it had occurred, and then I was not able to glean any information except from the boatmen in the vicinity; the remembrance was however fresh in the minds of all, and the testimony of those I consulted agreeing in every particular, I am confident that the following account must be true.

During the 5th, 6th and 7th of February, the ground being covered with snow and the weather intensely cold, the boatmen in the vicinity of Passage, Monkstown and Carrigaloe captured considerable numbers of the Conger Eel (*Anguilla Conger*, Linn.), of all sizes, varying from a foot to five and six feet in length. Many of them were left on the strand as the tide receded, some dead, but the greater number alive; others were followed in boats as they swam near the surface of the water and killed with sticks, whilst many committed suicide by swimming up on the strand. In a similar way they were caught from Hop Island to Ringaskiddy, a distance of five miles on the west side of the Lee, and from Smith Barry's Bay to the limekiln opposite Monkstown (about three miles) on the east side; those which were taken on Hop Island seem to have been washed up by the tide, as they were dead.

It appears strange, that a fish like the eel, usually found at the bottom of the river, should be affected by the cold, when one reflects, that the depth of the river varies in some of these places from forty to sixty feet—the water here, though not quite so salt as the sea, is yet very salt.

One individual caught as many as thirty-seven; but it would be impossible to form any idea of the numbers taken, as immense quantities were picked up by the boatmen and others as they walked along the strand. As such a long time elapsed before I heard of the circumstance, I had no opportunity of seeing any of them, but there can be no doubt that they were the Conger Eel.

Dr. Scott of Cove was kind enough to give me, from his meteorological journal, the temperature and the direction of the wind about and during the time of the event.

Feb. 1841.	Max.	Min.		Wind at 9 AM.
3.	29	27	Snowy.	East.
4.	28	25	Snowy.	East.
5.	30	27	Snowy.	East-south-east.
6.	31	28	Snow-gale.	East.
7.	30	27	Snowy.	East.
8.	38	34	No snow-falls.	East.
9.	40	33	No snow-falls.	North-east.

Believe me, Sir, yours truly,
FRANCIS M. JENNINGS.

William Thompson, Esq., Belfast.

ON THE OCCURRENCE OF *ANEMONE RANUNCULOIDES*.

BY THE REV. W. HINCKS, M.A., F.L.S.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—Wishing to add to my herbarium a truly wild specimen of the very rare *Anemone ranunculoides*, I lately devoted a day to an excursion with a friend to the neighbourhood, where alone, I believe, in these islands, it is now reported to be found wild.

Hudson gives the station “near King's Langley, Herts;” Mr. Geo.

Anderson, "near Abbot's Langley." Proceeding by the Birmingham railroad to the King's Langley station, I first examined the neighbourhood of that village and made some fruitless inquiries. I then proceeded to Abbot's Langley, examining carefully some woods on the way. At length, in passing through the village of Abbot's Langley, I observed the plant growing under a tree on the lawn before a house not far from the church. Having found out the gardener, I learned from him that it is reputed wild in this situation; that it has never been known to be planted, and comes up yearly, sometimes in one spot, sometimes in another, in considerable abundance; but he does not believe that it grows in other places in the neighbourhood. He obliged me with several specimens, which I presume are as wild as any found in England, and I have little doubt of this being the very station referred to both by Mr. Hudson and Mr. Geo. Anderson; though if it be true that the plant is found nowhere else in the surrounding country, its being entirely within the enclosure of one gentleman's grounds must lead to a suspicion that it has at some time been introduced.

Believe me to be, dear Sirs, very truly yours,
WILLIAM HINCKS.

Torrington Square, April 20, 1841.

On the Irish localities for Dianthus plumarius.—The *Dianthus plumarius* has no claim to a place in the Irish Flora, being evidently an outcast from gardens where it has been found; as, for example, at Blackrock, which abounds in gardens, and on the cliffs of Hop Island, immediately over which there is a flower-garden; it was also said to have been found on an old castle near Kinsale, since pulled down. I have searched all these places in vain for the plant.

The only *Dianthus* found near Cork is *Dianthus deltooides*, which occurs very sparingly in a dry hilly pasture near Dunscomb Wood. I met with it in June 1836, and specimens from that locality are in the possession of J. T. Mackay, Esq.—WM. T. ALEXANDER.

Naval Hospital, Plymouth, March 11, 1841.

[The *Dianthus plumarius* and *Caryophyllus* have as little claim to a place in the English Flora, for they are scarcely ever naturalized in the stations recorded for them.—EDIT.]

Suicidal powers of Luidia.—"The wonderful power which the *Luidia* possesses, not merely of casting away its arms entire, but of breaking them voluntarily into little pieces with great rapidity, approximates it to the *Ophiuræ*. This faculty renders the preservation of a perfect specimen a very difficult matter. The first time I ever took one of these creatures I succeeded in getting it into the boat entire. Never having seen one before, and quite unconscious of its suicidal powers, I spread it on a rowing-bench, the better to admire its form and colours. On attempting to remove it for preservation, to my horror and disappointment I found only an assemblage of rejected members. My conservative endeavours were all neutralized by its destructive exertions, and it is now badly represented in my cabinet by an armless disc and a discless arm. Next time I went

to dredge on the same spot, determined not to be cheated out of a specimen in such a way a second time, I brought with me a bucket of cold fresh water, to which article Starfishes have a great antipathy. As I expected, a *Luidia* came up in the dredge, a most gorgeous specimen. As it does not generally break up before it is raised above the surface of the sea, cautiously and anxiously I sunk my bucket to a level with the dredge's mouth, and proceeded in the most gentle manner to introduce *Luidia* to the purer element. Whether the cold air was too much for him, or the sight of the bucket too terrific, I know not, but in a moment he proceeded to dissolve his corporation, and at every mesh of the dredge his fragments were seen escaping. In despair I grasped at the largest, and brought up the extremity of an arm with its terminating eye, the spinous eyelid of which opened and closed with something exceedingly like a wink of derision. Young specimens are by no means so fragile as those full-grown; and the five-armed variety seems less brittle than that with seven arms. Like other Starfishes, it has the power of reproducing its arms."—*From Mr. Forbes's interesting and beautiful work on the 'British Starfishes,'* p. 138.

METEOROLOGICAL OBSERVATIONS FOR MARCH 1841.

Chiswick.—March 1. Cloudy. 2. Frosty; rain. 3. Fine: cloudy. 4. Clear and fine: rain. 5. Overcast: slight rain. 6. Clear and very fine. 7, 8. Very fine. 9—12. Foggy in the morning: very fine throughout the day: evening clear. 13. Slight haze: foggy. 14. Foggy: very fine: dense fog at night. 15, 16. Foggy: very fine. 17. Cloudy and showery. 18. Cloudy. 19. Overcast: showery. 20. Fine: stormy with rain. 21. Very fine: slight rain at night. 22. Rain: fine. 23. Fine. 24—26. Very fine. 27. Showery: clear. 28—30. Cloudy and fine. 31. Clear: fine but windy: rain at night.

Boston.—March 1. Cloudy: rain P.M. 2. Fine: rain P.M. 3, 4. Fine. 5. Fine: rain A.M. and P.M. 6. Fine. 7. Fine: beautiful morning. 8. Foggy. 9—13. Fine. 14. Cloudy. 15. Fine: three o'clock P.M. thermometer 65°. 16. Fine: two o'clock P.M. thermometer 65°. 17. Cloudy. 18—21. Windy. 22. Rain: 23. Windy. 24, 25. Fine. 26. Fine: rain P.M. 27. Cloudy. 28. Fine. 29. Cloudy: rain early A.M.; rain P.M. 30. Fine: rain P.M. 31. Fine.

N.B. This is the warmest month of March since March 1830.

Applegarth Manse, Dumfries-shire.—March 1. Cold and clear: snow on hills melting. 2. Rain all day. 3. Slight frost. 4. Frost harder: snow. 5. Heavy rain: snow gone. 6. Fine A.M.: rain P.M. 7. Fine throughout. 8. Fine spring day: rain A.M. 9. Fine spring day: fair. 10. Growing day: fog P.M. 11. Beautiful day. 12. Fine A.M.: raw fog P.M. 13, 14. Fine throughout. 15. Fog A.M.: cleared up. 16. Fine throughout. 17, 18. Fine A.M.: rain P.M. 19. Rain and hail. 20. Heavy showers. 21, 22. Rain P.M. 23. Cloudy and threatening. 24, 25. Showery and foggy. 26. Showers A.M.: cleared and fine. 27. Showers A.M. 28, 29. Showers P.M. 30. Fair A.M.: rain and wind P.M. 31. Boisterous and wet.

Sun shone out 23 days. Rain fell 18 days. Frost 2 days. Snow 1 day. Fog 3 days.

Wind East 1 day. South-east 4 days. South-south-east 1 day. South 4 days. South-south-west 1 day. South-west 13 days. West-south-west 2 days. West 3 days. North-north-west 1 day.

Variable 1 day. Calm 11 days. Moderate 8 days. Brisk 5 days. Strong breeze 5 days. Boisterous 2 days.

Mean temperature of the month	44°·07
Mean temperature of March 1840	39 ·35
Mean temperature of spring-water	45 ·60
Mean temperature of spring-water, March 1840	42 ·60

Meteorological Observations made at the Apartments of the Royal Society by the Assistant Secretary, Mr. ROBERTSON; by Mr. THOMPSON at the Garden of the Horticultural Society at Chiswick, near London; by Mr. VEALL at London; by Mr. DUNBAR at Applegarth Manse, Dumfries-shire.

Days of Month. 1841. March.	Barometer.				Thermometer.				Wind.			Rain.			Dew-point.						
	Chiswick.		Boston. 8g a.m.		Dumfries-shire.		London: Roy. Soc.		Chiswick.		Dumfries-shire.		London: Roy. Soc. 9 a.m.		Dumfries-shire.		London: Roy. Soc. 9 a.m.				
	Max.	Min.	9 a.m.	8g p.m.	Fahr. 9 a.m.	Self-register. Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
1.	29-614	29-585	29-46	29-57	39-3	42-6	36-9	41	27	57	45	33	se.	calm	nnw.	..	-10	36			
2.	29-688	29-393	29-35	29-10	37-4	43-2	35-0	49	37	34	45	32	sw.	w.	sw.	..025	-30	37			
3.	29-324	29-665	29-315	28-89	42-4	46-7	37-3	50	29	42	45	37	nw.	w.	sw.	..283	-02	39			
4.	29-912	29-904	29-818	29-48	36-8	48-3	35-2	46	33	36	41	26	nw.	nw.	sw.	..08	-08	36			
5.	29-876	29-857	29-299	29-42	42-0	45-4	36-2	50	36	39	41	32	s.	calm	sw.	..083	-22	40			
6.	29-764	29-960	29-723	29-26	43-2	50-3	40-5	52	41	48	33	nw.	nw.	calm	sw.	..158	..	41			
7.	30-080	30-255	30-047	29-53	51-7	52-5	42-6	61	42	49	51	41	w.	calm	sw.	..	..	43	
8.	30-414	30-369	30-355	29-85	50-5	59-2	49-6	61	35	46	52	41	sw.	calm	sw.	..	..	45	
9.	30-444	30-392	30-385	29-90	44-5	60-3	43-4	60	30	44	51	38	sw.	calm	sw.	..	..	46	
10.	30-490	30-462	30-426	29-93	46-7	56-5	43-3	63	27	44	49	41	s.	calm	sw.	..	..	45	
11.	30-512	30-473	30-401	29-97	45-2	58-7	40-0	64	30	44	56	39	s.	calm	var.	..	..	44	
12.	30-400	30-366	30-323	29-85	46-6	59-3	42-2	67	31	41-5	53	34	e.	sw.	sw.	..	..	46	
13.	30-398	30-376	30-331	29-87	46-0	61-0	44-6	59	37	46	56	35	e.	e.	se.	..	..	47	
14.	30-388	30-351	30-192	29-94	40-2	56-7	37-7	57	33	36-5	53	37	e.	w.	calm	..	..	45	
15.	30-176	30-152	30-005	29-70	30-30	46-6	41-6	66	30	43	50	42	n.e.	w.	w.	..	..	40	
16.	29-942	29-921	29-729	29-40	29-48	49-7	41-6	56	40	49	52	43	s.	w.	se.	..	..	47	
17.	29-630	29-603	29-577	29-08	29-30	51-3	61-7	49-2	56	41	51-5	49	s.	s.	sw.	..	..	49	
18.	29-444	29-525	29-404	28-98	29-11	51-7	46-8	56	40	49	52	43	e var.	sw.	sw.	..	..	48	
19.	29-628	29-713	29-598	29-14	29-20	49-7	56-0	44-2	54	34	46-5	51	ssw var.	sw.	sw.	..	..	48	
20.	30-650	29-647	29-565	29-24	29-39	50-3	54-0	44-3	57	39	47	50	sw.	s.	sw.	..	..	46	
21.	29-672	29-625	29-482	29-22	29-32	50-3	54-0	44-3	57	39	47	50	sw.	sw.	sw.	..	..	46	
22.	29-378	29-596	29-362	28-84	29-01	49-5	56-4	43-6	54	48	51	39	s.	sw.	s.	..133	-12	46			
23.	29-878	30-128	29-803	29-29	29-44	49-3	56-6	43-2	58	36	52	40	s var.	sw.	s.	..036	-02	50			
24.	30-270	30-222	29-192	29-70	29-94	51-4	58-3	46-6	58	30	50	48	sw.	w.	sw.	..025	..	48			
25.	30-160	30-123	29-952	29-60	29-85	51-8	55-7	44-3	61	32	47	48	sw.	w.	sw.	..	..	46	
26.	29-728	29-698	29-593	29-21	29-55	55-5	59-0	47-0	65	39	52	48	s.e.	s.	calm	..	..	45	
27.	29-778	29-863	29-721	29-21	29-48	51-5	64-2	45-0	58	27	48	42	s.	calm	se.	..	..	49	
28.	29-970	29-914	29-897	29-43	29-60	45-0	59-7	41-2	54	40	46	47	s.	calm	w.	..08	-08	48			
29.	29-938	29-922	29-787	29-37	29-66	51-2	56-6	44-8	58	40	51-5	53	sw.	calm	s.e.	..105	-10	44			
30.	29-912	29-915	29-836	29-34	29-60	48-2	57-0	43-0	55	41	47	49	w.	calm	s.	..072	-08	48			
31.	29-678	29-638	29-497	29-06	29-02	49-0	55-0	44-7	56	41	47	49	s var.	w.	sw.	..069	-03	46			
Mean.	29-940	29-968	29-856	29-42	29-665	29-753	47-1	55-4	42-7	57-09	35-61	45-3	50-1	Sum.	1-047	Sum.	1-32	1-20	3-37	Mean.	45